

REMARKS

Claims 1-5 are pending in this application. By this Amendment, the specification is amended to correct minor typographical errors therein. Also by this Amendment, Applicants respectfully request that page 44 of the original specification be replaced by the attached substitute page 44. The substitute page does not amend or modify the disclosures of original page 44 in any way. Rather, substitute page 44 is merely a more legible version of original page 44. No new matter is added.

The Office Action rejects claims 1-5 under 35 U.S.C. §102(b) over Japanese Patent No. JP 10-040834 to Takashi et al. Applicants respectfully traverse this rejection.

Independent claim 1 sets forth “a transparent conductive layered structure, comprising a transparent substrate and a transparent two-layered film being composed of a transparent conductive layer and a transparent coat layer being formed in succession on the transparent substrate, wherein the transparent conductive layer comprises, as its main components, conductive microparticles having a mean particle diameter of 1 to 100 nm and a binder matrix of silicon oxide, and wherein the transparent coat layer comprises, as its main component, a binder matrix of silicon oxide including one or more types of alkyl groups selected from long chain alkyl groups containing 7 to 30 carbon atoms.” Claims 2-5 depend, directly or indirectly, from claim 1.

Takashi discloses a transparent conductive layered structure comprising a transparent substrate and a transparent two-layered film composed of a transparent conductive layer and a transparent coat layer, successively formed on the substrate. *See* Takashi, paragraphs [0008]-[0011]. Takashi also discloses that the main components of the transparent conductive layer are a silica (SiO₂) binder and conductive particles of indium tin oxide, antimony tin oxide or ultrafine silver having a particle size of less than 200 nm. *See* Takashi, paragraphs [0009], [0017].

The Office Action asserts that Takashi, in paragraph [0022], also discloses that the main components of the transparent coat layer are a silica (SiO₂) binder and one or more types of alkyl groups, which may be selected from long chain alkyl groups having 10 carbons. Applicants respectfully disagree.

Takashi discloses that its transparent coat layer includes alkoxysilane as a component. *See* Takashi, paragraphs [0020]-[0021]. These alkoxysilanes are disclosed as alkoxysilanes, such as dimethyl dimethoxysilane and 3-glycidoxypropyltrimethoxysilane, all of which are short chain alkyl groups having less than 7 carbon atoms, and alkoxysilane derivatives having fluorinated alkyl groups, such as heptadecafluorodecyltrichlorosilane and heptadecafluorodecyltrimethoxysilane. *See* Takashi, paragraphs [0020]-[0023]. Takashi describes the fluoro alkyl-alkoxysilanes of its coat layer as providing additional benefits of water and chemical resistance. *Id.*

However, Takashi nowhere discloses a transparent coat layer including long chain (7 to 30 carbon) alkyl groups. Instead, Takashi discloses the use of fluorinated alkyl groups, which provide different properties than non-fluorinated alkyl groups. *Id.* The fluorinated alkyl groups if Takashi are different from the alkyl groups of the claimed invention, which are not substituted with fluorine atoms.

Because Takashi does not disclose a "transparent coat layer [that] comprises, as its main component, a binder matrix of silicon oxide including one or more types of alkyl groups selected from long chain alkyl groups containing 7 to 30 carbon atoms," as set forth in claim 1, Takashi does not disclose all of the elements of claim 1.

Applicants respectfully submit that claim 1, and its dependent claims 2-5, are patentable over Takashi. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-5 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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JAO:JMS/jms

Attachment:
Substitute Specification page 44

Date: September 22, 2004

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DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461
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Table 1

	Type of micro-particles	Gold content	Transparent coat layer forming				Surface resistance (Ω/□)	Visible light ray transmittance (%)	Standard deviation of transmittance (Note 3)	Haze value (%)	Bottom reflectance (%) /bottom wavelength (nm)	Pencil hardness
			coating liquid		Mixture ratio (Note 2)							
			Alkyl group containing compound									
			Alkyl group	Alkoxysilyl group (Note 1)								
Example 1	Ag-Au	80 wt%	C ₁₀ H ₂₁ -	-Si(OR) ₃	0.3	195	80.5	1.42	0.1	0.04/570	8H	
Example 2	Ag-Au	80 wt%	C ₁₀ H ₂₁ -	-Si(OR) ₃	1.0	192	80.1	1.46	0.1	0.09/575	8H	
Example 3	Ag-Au	80 wt%	C ₁₀ H ₂₁ -	-Si(OR) ₃	5.0	203	80.9	1.50	0.1	0.12/575	8H	
Example 4	Ag-Au	80 wt%	C ₁₀ H ₂₁ -	-Si(OR) ₃	1.0	210	80.3	1.51	0.1	0.18/565	8H	
Example 5	Ag-Au	80 wt%	C ₈ H ₁₇ -	-Si(OR) ₃	0.5	189	79.9	1.53	0.1	0.03/570	8H	
Example 6	Ag-Au	80 wt%	C ₈ H ₁₇ -	-Si(OR) ₃	1.0	197	80.5	1.45	0.1	0.08/580	8H	
Example 7	Ag-Au	80 wt%	C ₁₆ H ₃₃ -	-Si(OR) ₃	1.0	223	81.3	1.40	0	0.22/560	8H	
Example 8	ITO	—	C ₁₀ H ₂₁ -	-Si(OR) ₃	1.0	15600	100	—	0.1	0.83/595	9H	
Comparative Example 1	Ag-Au	80 wt%	None	-Si(OR) ₃	0	199	80.6	1.45	0.1	0.16/570	6H	
Comparative Example 2	Ag-Au	80 wt%	None	-Si(OR) ₃	0	213	80.8	1.52	0.1	0.17/565	3H	
Comparative Example 3	Ag-Au	80 wt%	C ₆ H ₁₃ -	-Si(OR) ₃	1.0	193	80.1	1.47	0.1	0.06/565	6H	
Comparative Example 4	ITO	—	None	-Si(OR) ₃	0	15000	100	—	0.1	0.85/590	7H	

Note 1: R is methyl group

Note 2: Parts by weight of an alkyl group containing compound to 100 parts by weight of an inorganic binder (SiO₂).Note 3: Value in terms of the transmittance (%) of the transparent two-layered film only without the transparent substrate
At each wavelength in 5 nm intervals in the visible light ray wavelength region (380 to 780 nm).